CLAIM AMENDMENTS

Claims 1-36 are pending in this application. The following listing of claims will replace all prior versions, and listings, of claims in the application. Claims 1, 6, 8, 14-19, 21, 25, 27, 28 and 30-32 are herein amended.

1. (Currently Amended) A projection type display apparatus including a projection optical system for projecting image light from a display device, the projection optical system having light amount adjusting means capable of substantially uniformly attenuating said image light in the cross-section thereof , wherein said attenuating is based on an input image signal to the display device.

2. (Original) An apparatus according to claim 1, wherein said light amount adjusting means has a variable stop comprising a plurality of tiltable light intercepting plates arranged in said cross-section.

3. (Original) An apparatus according to claim 1, wherein said light amount adjusting means has a variable stop comprising a plurality of displaceable light intercepting plates arranged in said cross-section.

4. (Original) An apparatus according to claim 1, wherein said light amount adjusting means has ND filter means variable in transmittance.

5. (Original) An apparatus according to claim 1, wherein said light amount adjusting means has a stop variable in aperture diameter.

6. (Currently Amended) An apparatus according to claim 1, wherein a write signal to said display device is modulated in synchronism with the adjustment of the amount of light by said light amount adjusting means so that ~~the~~ dynamic range about luminance may change.

7. (Original) An apparatus according to claim 1, wherein said display device includes a light modulating element and illuminating means for illuminating said light modulating element with light from a light source, and said illuminating means has a first optical system for forming a p lurality of light source images by the light from said light source, and a second optical system for superimposing the beams from said plurality of light source images on said light modulating element, and said light amount adjusting means is disposed at a position whereat said plurality of light source images are projected.

8. (Currently Amended) A projection type display apparatus comprising:

a projection optical system for projecting image light from a display device;

light amount adjusting means for adjusting the amount of said image light; and

control means for attenuating the amount of light of the whole of said image light by said light amount adjusting means and modulating a write signal to said display ~~apparatus~~ device so that ~~the~~ dynamic range about luminance may be expanded , wherein said attenuating is based on an input image signal to the display device.

9. (Original) An apparatus according to claim 8, wherein said light amount adjusting means substantially uniformly attenuates said image light in the cross-section thereof.

10. (Original) An apparatus according to claim 9, wherein said light amount adjusting means has a variable stop comprising a plurality of tiltable light intercepting plates arranged in said cross-section.

11. (Original) An apparatus according to claim 9, wherein said light amount adjusting means has a variable stop comprising a plurality of displaceable light intercepting plates arranged in said cross-section.

12. (Original) An apparatus according to claim 9, wherein said light amount adjusting means has ND filter means variable in transmittance.

13. (Original) An apparatus according to claim 8, wherein said light amount adjusting means has a stop variable in aperture diameter.

14. (Currently Amended) An apparatus according to claim 8, wherein ~~said projection optical system has~~ said light amount adjusting means is disposed at a pupil position of said projection optical system.

15. (Currently Amended) An apparatus according to claim 8, wherein said display device includes a light modulating element driven in conformity with an image signal, and illuminating means for illuminating said light modulating element with light from a light source, and said illuminating means has a first optical system for forming a plurality of light source images by the light from said light source, and a second optical system for superimposing beams from said plurality of light source images on said light modulating element, and said light amount adjusting means is disposed ~~at a position~~ between said first and second optical system whereat said plurality of light source images are projected.

16. (Currently Amended) An apparatus according to claim 15, wherein said illuminating means has ~~said light amount adjusting means~~ a color filter at a condensing point of the light from the light source.

17. (Currently Amended) An apparatus according to claim 15, wherein ~~said projection optical system has~~ said light amount adjusting means is disposed at a pupil position of said projection optical system.

18. (Currently Amended) A projection type display apparatus comprising:

a light modulating element for controlling ~~the~~ transmitted or reflected state of light to thereby display a gradation image;

an illuminating device for applying light to said light modulating element;

a projection optical system for projecting the transmitted light or reflected light of the

light applied to said light modulating element;

write signal processing means for modulation-processing a write signal to said light modulating element;

projection light amount control means for controlling the amount of light in the optical path between ~~the~~ an optical type integrator of said illuminating ~~apparatus~~ device to said projection optical system; and

control signal generating means for controlling said write signal processing means and said projection light amount control means;

wherein said control signal generating means generates a control signal on the basis of the luminance level of an input image signal so as to make the amount of projection light great and the modulation of the write signal small when said luminance level is high, and to make the amount of projection light small and the modulation of the write signal great when said luminance level is low.

19. (Currently Amended) An apparatus according to claim 18, wherein said projection light amount control means adjusts the amount of light in the optical path between said illuminating device ~~to~~ and said light modulating element and/or between said light modulating element ~~to~~ and said projection optical system.

20. (Original) An apparatus according to claim 18, wherein said projection light amount control means uniformly intercepts a light source image formed by said optical type integrator.

21. (Currently Amended) An apparatus according to claim 18, wherein said projection optical system is comprised of a so-called schlieren optics.

22. (Original) An apparatus according to claim 18, wherein said projection light amount control means has movable stop means and stop driving means.

23. (Original) An apparatus according to claim 18, wherein said projection light amount control means is disposed at a position which is not in conjugate relationship with said light modulating element.

24. (Original) An apparatus according to claim 18, wherein said projection light amount control means controls the amount of stop in conformity with the luminance level of the input image signal.

25. (Currently Amended) An apparatus according to claim 18, wherein ~~the~~ movable stop means of said projection light amount control means is a stripe stop, and ~~the~~ driving means is a cam motor or an ultrasonic motor.

26. (Original) An apparatus according to claim 18, wherein said control signal generating means has luminance level calculation means for calculating the luminance level of the input image signal, and projection light amount calculation means for calculating the amount of projection light emerging from the projection optical system in conformity with said calculated

luminance level, and generates the control signal of said projection light amount control means on the basis of the amount of projection light calculated in said projection light amount calculation means, and generates the control signal of said write signal processing means on the basis of the luminance level calculated in said luminance level calculation means and said calculated amount of projection light.

27. (Currently Amended) An apparatus according to claim 18, wherein ~~said~~ luminance level calculation means calculates the maximum value of the luminance signal of each pixel in each field or each frame of an image signal as maximum luminance.

28. (Currently Amended) An apparatus according to claim 18, wherein ~~said~~ luminance level calculation means calculates the cumulative histogram of the luminance signal of each pixel in each field or each frame of an image signal, and calculates a luminance level at which said cumulative histogram becomes constant or greater as maximum luminance.

29. (Original) An apparatus according to claim 18, wherein said write signal processing means modulates the write signal so as to amplify it at an amplification factor substantially inversely proportional to said amount of projection light.

30. (Currently Amended) An apparatus according to claim 18, wherein said projection light amount control means is disposed at the pupil position of said projection optical system.

31. (Currently Amended) A projection type display apparatus comprising:

a projection optical system for projecting an image from a display device onto a screen; and

light amount control means for uniformly intercepting a light source image projected onto the pupil of said projection optical system, wherein said intercepting is based on an input image signal to the display device.

32. (Currently Amended) A projection optical system for projecting image light from a display device, said projection optical system having light amount adjusting means capable of substantially uniformly attenuating said image light in the cross-section thereof, wherein said attenuating is based on an input image signal to the display device.

33. (Original) A system according to claim 32, wherein said light amount adjusting means has a variable stop comprising a plurality of tiltable light intercepting plates arranged in said cross-section.

34. (Original) A system according to claim 32, wherein said light amount adjusting means has a variable stop comprising a plurality of displaceable light intercepting plates arranged in said cross-section.

35. (Original) A system according to claim 32, wherein said light amount adjusting means has ND filter means variable in transmittance.

36. (Original) A system according to claim 32, wherein said light amount adjusting means has a stop variable in aperture diameter.